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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/171,399 10/16/98 SAND

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IM22/1103

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EXAMINER

EINSMANN, M

ART UNIT

PAPER NUMBER

1751

DATE MAILED:

11/03/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/171,399**

Applicant(s)  
**Sano et al.**

Examiner  
**Margaret Einsmann**

Group Art Unit  
**1751**



☒ Responsive to communication(s) filed on Sep 28, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 10-18 is/are pending in the application.

Of the above, claim(s) 10, 11, and 16-18 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 12-15 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.


(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Harper, Jr.

U. S. 4,743,266.

Fabric treatment compositions containing a reactive modifier, which is an N-methylol crosslinking agent, and an organic substance having a molecular weight of between 100-20,000, which is the alkyl bishydroxyethyl quaternary in column 2 lines 7-13, are disclosed. Example 1 anticipates this claim when it uses the quaternary compound of the invention having an alkyl group of 12 carbons. Since the ethylene oxide groups are 2-50, the molecular weight of this organic compound definitely meets the molecular weight limit of the claim.

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3.  -15 are rejected under 35 U.S.C. 102(b) and (e) as being anticipated by Yamada et al., U.S. 6,222,531. A surface treating composition, for treating textiles or fibers containing polyurethane, comprises water soluble wool protein, said wool protein having been solubilized by being oxidized with hydrogen peroxide. Since the hydrogen peroxide reacts with the wool forming the soluble product, and since it is still in the coating composition comprising chitosan when the coating composition is applied to the textile, the limits of all of the above claims are met. The molecular weight limitation of the water soluble protein is disclosed in the paragraph bridging columns 6 and 7. The results of the molecular weight distribution also disclose that the wool protein comprises a range of several thousands, with its peak at 30,000. This is a statement that the soluble wool product contains products having MW of 100-20,000 since several thousand is certainly between 100 and 20,000. Thus example 1 in column 7 anticipates the instant claims.

4. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et. al., US 5,385,836.

A coating for non-woven fabric comprising silk fibroin, gelatin and insolubilized chitosan is disclosed. Noting comparative example 2 in column 7, a composition comprising a crosslinking agent (which is certainly a reactive modifier), aqueous fibroin solution, and gelatin is disclosed. Gelatin is an albumin (protein) having a molecular weight of less than 2000. Though there is no molecular weight given for the aqueous solution of fibroin, it is an aqueous solution

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and thus is in a water soluble form, having been hydrolyzed to a polypeptide, thus reducing its molecular weight.

Noting example 1 in column 6, a polyurethane emulsion containing a crosslinking agent was formed into a film. It was treated with an aqueous solution comprising chitosan, fibroin and gelatin and lactic acid. Chitosan, fibroin and gelatin are all water soluble organic substances' the composition contains both lactic acid and the crosslinking agent in the polyurethane emulsion, both being reactive modifiers, and at least the gelatin has a molecular weight in the range of 100-2000.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The metes and bounds of the "organic substance" and the "reactive modifier" cannot be determined. The court has held that compositions are indefinite for being defined in terms of properties alone. *Ex parte Spacht* 165 USPQ 409 (PO BdPatApp 1969); *Ex parte Slob* 157

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USPQ 172 (PO bdPatApp 1967); *Ex parte Pulvari* 157 USPQ 169 (PO BdPatApp 1966). What is the chemical constitution of those two components?

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is (703) 308-3826. The examiner can normally be reached on Monday to Thursday and alternate Fridays from 7:00 A.M. to 4:30 P.M. The fax phone number for this Technology Center is (703) 305-3599

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

*Margaret Einsmann*

MARGARET EINSMANN

PRIMARY EXAMINER 1751

November 2, 1999

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